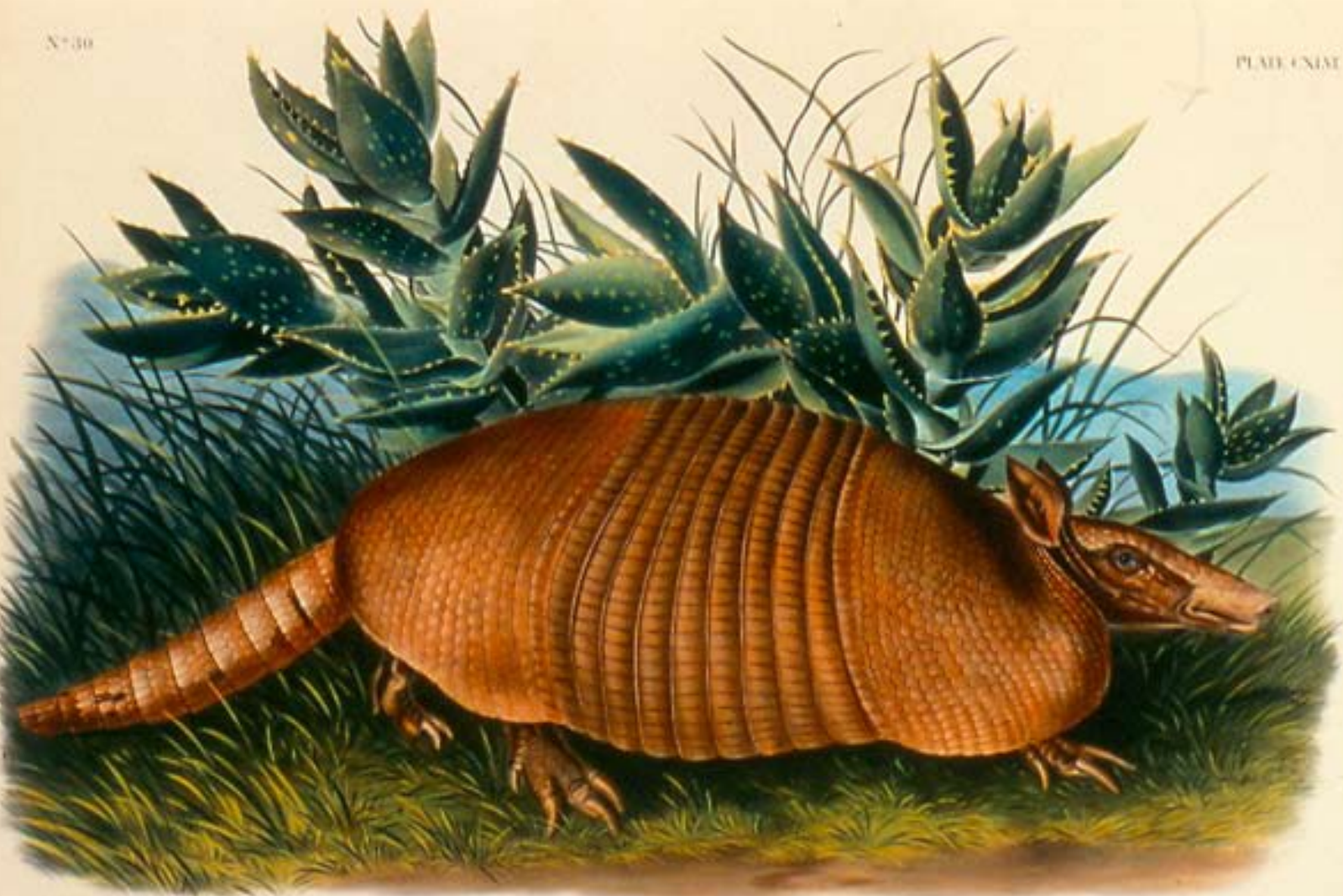


Nº 30

PLACE ONLINE



1900
 1901
 1902
 1903
 1904
 1905
 1906
 1907
 1908
 1909
 1910
 1911
 1912
 1913
 1914
 1915
 1916
 1917
 1918
 1919
 1920
 1921
 1922
 1923
 1924
 1925
 1926
 1927
 1928
 1929
 1930
 1931
 1932
 1933
 1934
 1935
 1936
 1937
 1938
 1939
 1940
 1941
 1942
 1943
 1944
 1945
 1946
 1947
 1948
 1949
 1950
 1951
 1952
 1953
 1954
 1955
 1956
 1957
 1958
 1959
 1960
 1961
 1962
 1963
 1964
 1965
 1966
 1967
 1968
 1969
 1970
 1971
 1972
 1973
 1974
 1975
 1976
 1977
 1978
 1979
 1980
 1981
 1982
 1983
 1984
 1985
 1986
 1987
 1988
 1989
 1990
 1991
 1992
 1993
 1994
 1995
 1996
 1997
 1998
 1999
 2000
 2001
 2002
 2003
 2004
 2005
 2006
 2007
 2008
 2009
 2010
 2011
 2012
 2013
 2014
 2015
 2016
 2017
 2018
 2019
 2020
 2021
 2022
 2023
 2024
 2025
 2026
 2027
 2028
 2029
 2030
 2031
 2032
 2033
 2034
 2035
 2036
 2037
 2038
 2039
 2040
 2041
 2042
 2043
 2044
 2045
 2046
 2047
 2048
 2049
 2050
 2051
 2052
 2053
 2054
 2055
 2056
 2057
 2058
 2059
 2060
 2061
 2062
 2063
 2064
 2065
 2066
 2067
 2068
 2069
 2070
 2071
 2072
 2073
 2074
 2075
 2076
 2077
 2078
 2079
 2080
 2081
 2082
 2083
 2084
 2085
 2086
 2087
 2088
 2089
 2090
 2091
 2092
 2093
 2094
 2095
 2096
 2097
 2098
 2099
 2100
 2101
 2102
 2103
 2104
 2105
 2106
 2107
 2108
 2109
 2110
 2111
 2112
 2113
 2114
 2115
 2116
 2117
 2118
 2119
 2120
 2121
 2122
 2123
 2124
 2125
 2126
 2127
 2128
 2129
 2130
 2131
 2132
 2133
 2134
 2135
 2136
 2137
 2138
 2139
 2140
 2141
 2142
 2143
 2144
 2145
 2146
 2147
 2148
 2149
 2150
 2151
 2152
 2153
 2154
 2155
 2156
 2157
 2158
 2159
 2160
 2161
 2162
 2163
 2164
 2165
 2166
 2167
 2168
 2169
 2170
 2171
 2172
 2173
 2174
 2175
 2176
 2177
 2178
 2179
 2180
 2181
 2182
 2183
 2184
 2185
 2186
 2187
 2188
 2189
 2190
 2191
 2192
 2193
 2194
 2195
 2196
 2197
 2198
 2199
 2200
 2201
 2202
 2203
 2204
 2205
 2206
 2207
 2208
 2209
 2210
 2211
 2212
 2213
 2214
 2215
 2216
 2217
 2218
 2219
 2220
 2221
 2222
 2223
 2224
 2225
 2226
 2227
 2228
 2229
 2230
 2231
 2232
 2233
 2234
 2235
 2236
 2237
 2238
 2239
 2240
 2241
 2242
 2243
 2244
 2245
 2246
 2247
 2248
 2249
 2250
 2251
 2252
 2253
 2254
 2255
 2256
 2257
 2258
 2259
 2260
 2261
 2262
 2263
 2264
 2265
 2266
 2267
 2268
 2269
 2270
 2271
 2272
 2273
 2274
 2275
 2276
 2277
 2278
 2279
 2280
 2281
 2282
 2283
 2284
 2285
 2286
 2287
 2288
 2289
 2290
 2291
 2292
 2293
 2294
 2295
 2296
 2297
 2298
 2299
 2300
 2301
 2302
 2303
 2304
 2305
 2306
 2307
 2308
 2309
 2310
 2311
 2312
 2313
 2314
 2315
 2316
 2317
 2318
 2319
 2320
 2321
 2322
 2323
 2324
 2325
 2326
 2327
 2328
 2329
 2330
 2331
 2332
 2333
 2334
 2335
 2336
 2337
 2338
 2339
 2340
 2341
 2342
 2343
 2344
 2345
 2346
 2347
 2348
 2349
 2350
 2351
 2352
 2353
 2354

Image 1

John Woodhouse Audubon

Nine-Banded Armadillo, 1848

Plate 146

Order: Xenarthra

Family: Dasypodidae

Species: *Dasypus novemcinctus*

Common Modern Name: Nine-Banded Armadillo

Show Image One and Image Two together to your students and use the questions below to guide your students in a discussion.

- **Look closely at the Nine-Banded Armadillo. Imagine that you are petting the Armadillo. Describe how it would feel. Use different textures in your answer. Does it look soft, hard, bumpy, smooth? Explain.** (*The most easily recognized feature of an armadillo is its shell. All armadillos have shells, made of true bone that cover their backs. Most armadillos also have bony rings or plates that protect their tails. Because their backs are covered with bone, armadillos are not very flexible.*)

Did you know? The armadillo, along with the pangolin (commonly found in Africa and looks like a scaly anteater), are the only mammals to have reptile-like scales instead of fur.

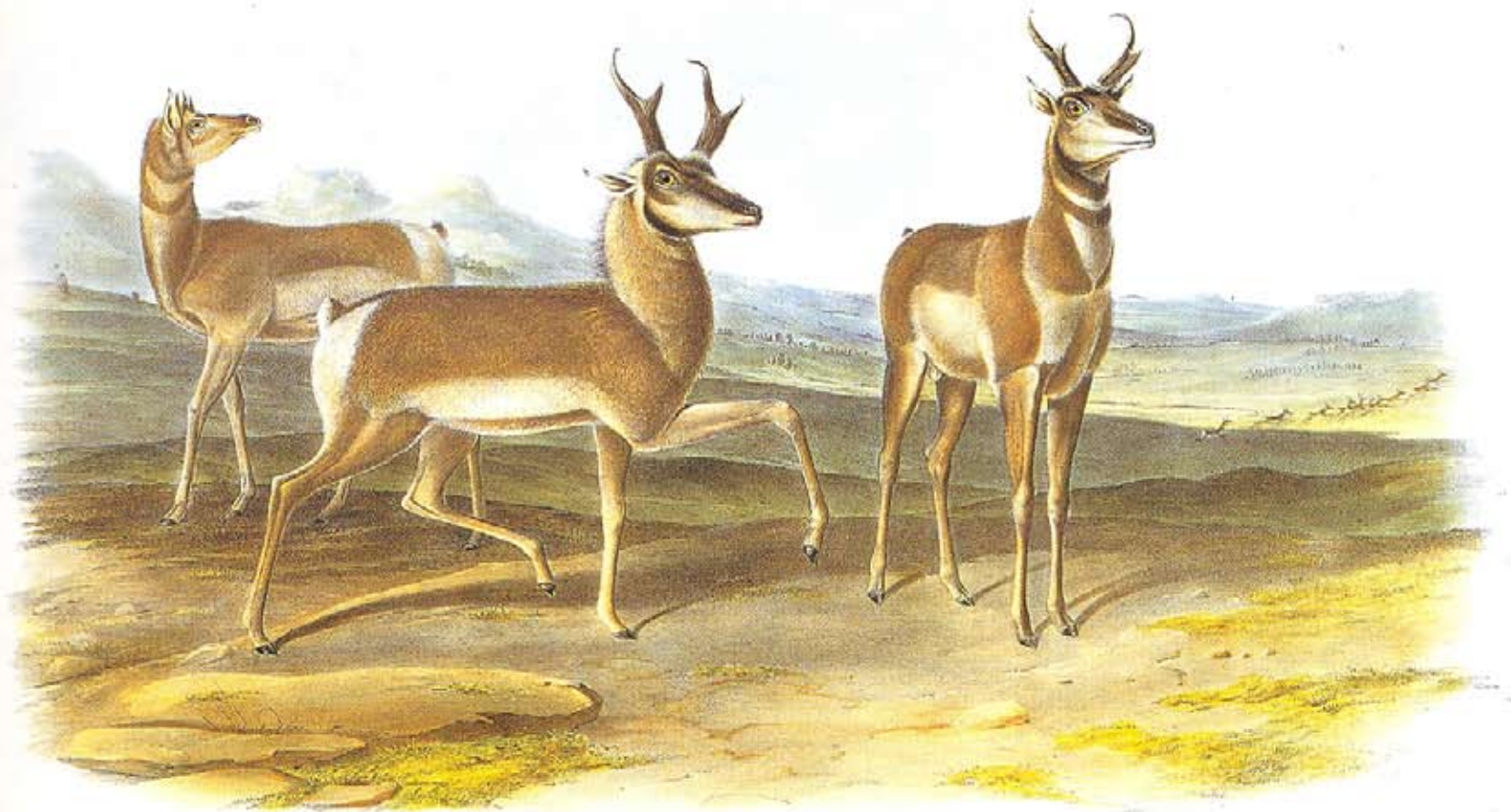
- **Now look at the Pronghorn Antelope. Describe how it would feel to pet the antelopes. How are the two animals different?**
- **Look again at the Armadillo. What shapes do you see on the animal's shell? Describe what you see. Now look closely at the Antelope. Describe the patterns and colors that you see on the antelope's fur.**

Related Questions continued on back of Image Two.

Nine-Banded Armadillo

The Nine-banded Armadillo's heavy, bony plates make it unique among the North American mammals. This mammal has many different grunts and is constantly on the go with its short, powerful legs and strong claws. It eats insects, arthropods, and earthworms with its long tongue and peg-like teeth and prefers to make its dens and burrows in the soft, dry and warm soils of Texas and other Southern States.

The armadillo has a keen sense of smell, poor eyesight, and will occasionally stand upright on its tail and sniff around for danger or food. Despite appearances, it is quite swift, can swim short distances, and cross small bodies of water by walking on the bottom. Armadillos are commonly seen dead on the side of the road because of their tendency to jump when startled instead of ducking under an oncoming car.



ANTILOPE AMERICANA, OUD.

PRIMO - HORRIS ANTELOPE.
 HORN & PRINCE.

Image 2

John Woodhouse Audubon

Prong-Horned Antelope, 1845

Plate 77

Order: Artiodactyla

Family: Antilocapridae

Species: *Antilocapra Americana*

Common Modern Name: Pronghorn

Show Image One and Image Two together to your students and use the questions below to guide your students in a discussion.

- **Many mammals have defense strategies that protect them from predators in the wilderness. By looking at the two images, in what ways do you think the Antelope protects itself? How do you think the Armadillo can protect itself?** (*Antelope use their horns in defense against predators. Males and sometimes females also use them to establish their position in a herd or to fight rivals. All antelope species have horns, although in some species they are only found on the males. The armadillo's hard shell acts as armor for the animal but an alternative defense is to dig in the ground and burrow in holes to protect itself from predators.*)
- **In what other ways do animals protect themselves from predators? Think of other mammals and how they show physical signs of self-defense.** (*i.e., baring of teeth, playing dead, porcupine quills for defense, etc.*)
- **Look again at both images. Now look closely at the colors in the two landscapes. Describe the colors of the things farthest away, in the background.** (*i.e. blues and grays used in mountains of Antelope; cool colors of clouds and hill of Armadillo.*)
- **How do these colors differ from the colors of things up close, in the foreground?** (*i.e. the deep yellows and browns used in both images.*) *Explain that artists like Audubon use cooler and duller colors in the background to portray an illusion of depth, and gradually use warmer colors in the middle ground and foreground to make things advance and appear closer in a picture.*

Pronghorn

Inhabiting the open grass and brush lands of Southern Canada, Western United States, and Mexico, the North American Pronghorn nearly became extinct during the early 1900's with one subspecies still endangered. Although commonly referred to as an antelope, the Pronghorn belongs to a separate species.

The fastest of all American animals, it can maintain speeds of 35-40 miles per hour and reach up to 70 miles per hour with bounds and leaps of 20 feet. The Pronghorn has enormous eyes and excellent peripheral vision. It is active throughout the day and night, alternating sleep with watchful feeding on vegetation. The territorial Pronghorn migrates in herds of up to 100 animals and raises its white rump hairs when alarmed, to produce a flash signal that can be seen for great distances.



Image 3

John James Audubon

Red Texan Wolf

Plate 82

Order: Carnivora

Family: Canidae

Species: *Canis rufus*

Common Modern Name: Red Wolf

Show Image Three to your students and use the questions below to guide your students in a discussion.

- **Look closely at the image. Imagine walking into the picture. What would it be like? Is the ground soft, dusty, or rough? Do you hear any sounds? Is it warm or cool? Explain.**
- **What colors do you see?** (*i.e., reds, browns, greens, blues*) **Where do you see the colors repeated in the picture?** (*i.e., reds and browns in foreground and on wolf, blues in the foreground*)
- **What repeated textures and shapes do you see?** (*i.e., the shell and rock shapes in foreground, texture of the wolf's fur, and the texture of the trees in background.*)

Explain to students that artists like Audubon carefully place each element into a particular place of an artwork. This is called composition—the placement or arrangement of the elements of art in a work. Artists also repeat colors, textures, and shapes to guide our eyes through a painting. This is called rhythm.

- **Again look closely. What's going on in this picture?**
- **Does it look like the wolf is sniffing something? Explain what you see.** (*He is sniffing at a buffalo bone. Wolves eat meat almost exclusively. Wolves work as a team to attack herds of animals.*)

Wolves, like many other animals, communicate by scent marking: leaving their urine on trees or rocks where other wolves will find it. This is to let others know that the area is claimed.

- **What other animal(s) do you know of that marks its territory with urine? (dogs, coyotes)**
Wolves belong to the same family of animals as the dog, or Canidae, you may have as a family pet.

Red Wolf

The Red Wolf may be black, brown, tan, or red and has long, slender legs that are adapted for long distance running. This carnivore's diet consists of small mammals, especially rabbit. It was nearly eliminated by 1980, but is slowly being reintroduced to its natural range in the Southeastern United States. A sociable animal with a distinct "sad and dismal" wailing howl, Red Wolves roam in mated pairs and temporary packs.

Nº 27.

PLATE CXXXI.



Thomas Say, Esq. del. & J. M. Smith, sculp.

URSUS FERRUGINEUS, LEWIS & CLARK.
GREYLY BEAR.
MALE.

1805. Thomas Say, Esq. del. & J. M. Smith, sculp.

Image 4

John Woodhouse Audubon

Grizzly Bear, 1848

Plate 131

Order: Carnivora

Family: Ursidae

Species: *Ursus arctos*

Common Modern Name: Grizzly Bear

Show Image Four to your students and use the questions below to guide your students in a discussion.

- **Look closely at the picture. Does the bears' fur look soft or rough? Describe the lines and shapes that you see that create texture.** (*i.e., numerous short and long lines, curves, and thick and thin lines make up the texture of the fur.*)
- **Now, look closely at the bears. If you could use only geometric shapes to draw these bears, what shapes would you use? Explain.**
- **Look at the colors in this work of art. What different colors did the artist use to paint the bears?** (*Notice the grizzlies' whitish tips on their hair; this gives them a "grizzled" look which means streaked with gray.*) **What other colors do you see in the artwork? Why do you think these colors were used?**
- **By looking closely at the bears' surroundings, what clues can you find about the bears' habitat—the environment needed by a particular species for survival.** (*Grizzlies live inland away from the ocean unlike the coastal brown bear. They eat meat, although plants, berries, and nuts make up most of their diet.*)
- **What makes this work of art look real to you? What makes it look unreal?**

Grizzly Bear

The largest land carnivore in the world, the Grizzly Bear inhabits the mountains, forests, valleys, and meadows of Canada, Alaska, Northwestern United States, and a few areas in Mexico. This ursidae has a wide-ranging diet including fish, insects, small mammals, elk, moose, livestock, and vegetation. Adult Grizzlies usually weigh between 500-650 pounds. They become lethargic and remain in their dens during winter, putting on a layer of fat of up to 400 pounds. Grizzly Bears do not hibernate.

United States Grizzlies are greatly endangered and are the most dangerous of all bears. While they normally avoid humans, a Grizzly will attack when startled, scared, sick, wounded, or when defending their young. Young cubs can climb trees but adults are too heavy for climbing. This bear normally moves with a slow, clumsy walk, swinging its head back and forth, but can lope as fast as a horse. If charged by a Grizzly, stand your ground; if attacked, lie flat on your stomach and play dead.



CAPYBARA VIRENS AMERICANUS, LAM.
 (Capybara.)

Image 5

John James Audubon

American Beaver, 1844

Plate 46

Order: Rodentia

Family: Castoridae

Species: *Castor Canadensis*

Common Modern Name: American Beaver

Show Image Five to your students and use the questions below to guide your students in a discussion.

• **Look closely at the American Beaver. Unlike other naturalists at the time, Audubon's animal illustrations included backgrounds to tell viewers about the animal's habitat. What did the artist include in this image to tell you about the Beavers' habitat?** (*i.e., trees, plants, lots of water, sitting on the bank—or slope—above the water.*)

Beavers that live along a river generally make burrows with an underwater entrance in the riverbank. Those that live in quiet streams, lakes, and ponds usually build dams and a lodge (home) with an underwater entrance. They use sticks and mud to build their home just above water level. Tunnels to the lodge lead down to the deep water where they store their food.

• **Audubon's animal illustrations also provide clues to the animal's physical characteristics and how it lives. What physical characteristics did the artist emphasize about the Beaver?** (*i.e., the Beaver is gnawing at the tree with his front teeth, the Beaver's teeth are shown in profile to show their size, the Beaver's webbed feet are emphasized, as are the front paws*)

- **Did you notice the Beaver's tail? Describe what it looks like.**(*i.e., wide, flat, etc.*)
- **What does this image tell you about how the Beaver lives?**

Beavers gnaw at trees to bite out wood chips and to trim branches. Their big front teeth are sharp and they can take out a large chip of wood in a single bite. The beaver trims off branches, cuts them into convenient sizes, and carries them in its mouth to the dam. There it either eats the bark, turning the branches in its forefeet, or stores them underwater for winter use. Beavers spend much of their time in water. Their large hind feet are webbed, much like a duck's feet. Their feet make them very good swimmers and divers. The Beaver's tail also helps it swim—its wide and flat shape acts like a boat rudder when the Beaver swims side to side and to dive deep. Lastly, when the Beaver sits upright to gnaw at a tree it uses its tail as a brace.

The American Beaver is primarily nocturnal—an animal that is active at night and inactive during the day. By looking at this artwork what time of day do you think it is? In making this work of art, what problems might the artist have faced along the way?

American Beaver

The American Beaver essentially resides in Canada and the United States and is most likely to be seen in the evening. This large rodent has a flat tail, oily fur, and two split nails on the inner part of its webbed hind feet. It builds dams and lodges in quiet streams, lakes, and ponds or will make a burrow along a riverbank; all with underwater entrances. The American Beaver is more comfortable in the water than on land and may remain submerged for up to 15 minutes. Hunted mostly by the otter, it is also preyed upon by the Gray Wolf, Coyote, Common Red Fox, and Bobcat.



Image 6

John Woodhouse Audubon

John James Audubon, c. 1843

Oil on canvas

Courtesy, Department of Library Sciences, American Museum of Natural History, New York

John Woodhouse Audubon painted this portrait of his father after John James Audubon returned from his trip up the Missouri River to document the mammals of North America.